3.0 INITIAL SCREENING RESULTS

3.1 Initial Screening Matrix

Table 3-1, below, shows the initial screening results for the alternatives included in the *Potomac Yard Metrorail Station Concept Development Study* and those suggested during the public scoping process.

Table 3-1: Summary of Results

Alternative		Responsiveness to Project Purpose and Need	Consistency with Land Use and Development Plans	Technical Feasibility
Metrorail Station Alternative A	underground	Yes	Yes	No
	at-grade	Yes	Yes	Yes
	aerial	Yes	Yes	No
Metrorail Station Alternative B1	underground	Yes	Yes	No
	at-grade	Yes	Yes	Yes
	aerial	Yes	Yes	No
Metrorail Station Alternative B2	underground	Yes	Yes	No
	at-grade	Yes	Yes	Yes
	aerial	Yes	Yes	No
Metrorail Station Alternative B3	underground	Yes	Yes	No
	at-grade	Yes	Yes	Yes
	aerial	Yes	Yes	No
Metrorail Station Alternative C1	underground	Yes	Yes	No
	at-grade	Yes	No	-
	aerial	Yes	Yes	No
Metrorail Station Alternative C2	underground	Yes	Yes	No
	at-grade	Yes	No	-
	aerial	Yes	Yes	No
Metrorail Station Alternative D1	underground	Yes	Yes	No
	at-grade	Yes	No	-
	aerial	Yes	Yes	No
Metrorail Station Alternative D2	underground	Yes	Yes	No
	at-grade	Yes	No	-
	aerial	Yes	Yes	No
Metrorail Station Alternative D3	underground	Yes	Yes	No
	at-grade	Yes	No	-
	aerial	Yes	Yes	Yes
Metrorail Station Alternative E1	underground	No	-	-
	at-grade	No	-	-
	aerial	No	-	-
Metrorail Station Alternative E2	underground	No	-	-
	at-grade	No	-	-
	aerial	No	-	-
VRE Station Alternative		No	-	-
Bus Alternative		No	-	-
Parking Garage Alternative		No	-	-

3.2 Alternatives Eliminated from Further Consideration

The following alternatives were eliminated from further consideration:

Bus Alternative, Metrorail Station Alternatives E1 and E2, VRE Station Alternative, and Parking Garage Alternative

The alternatives did not pass the initial screening. They did not respond to the project purpose and need.

The Bus Alternative would not establish a new access point to the regional Metrorail system and therefore would not enhance Metrorail access, serve population and employment growth, or accommodate travel demand to and from Potomac Yard.

Metrorail Station Alternative E1, located in Old Town Alexandria, and Metrorail Station Alternative E2, located in the West End of Alexandria, would not enhance Metrorail access, provide direct transit service, accommodate travel demand, or support safer travel modes in the Potomac Yard area. In addition, these alternatives would not support WMATA's system development plans or regional long-range transportation plans.

The VRE Station Alternative would not provide all-day or frequent access to the Metrorail system and would only serve a small portion of existing and potential transit users.

The Parking Garage Alternative would not address the need to accommodate travel demand in the U.S. Route 1 corridor or improve transit access to the Potomac Yard area.

Metrorail Station Alternatives C1, C2, D1, D2, and D3 (at-grade options)

The alternatives did not pass the initial screening. They were not consistent with land use and development plans. The at-grade alignments for Alternatives C1, C2, D1, and D2 through Potomac Yard would conflict with the goal of pursuing a comprehensive multi-modal approach to transportation, because they would require grade separated crossings and disrupt the planned street grid. The at-grade alignment for Alternative D3 would displace or disrupt access to a planned park and recreational trail and would potentially isolate the proposed parkland and trail between the realigned Metrorail line and the existing CSXT freight line.

Metrorail Station Alternatives A, B1, B2 and B3 (aerial and underground options); C1, C2, D1, and D2 (aerial and underground options); D3 (underground option)

The alternatives did not pass the initial screening. They were not technically feasible.

The horizontal alignments for the underground and aerial options for Alternatives A, B1, B2, and B3 locate on or in close proximity to the existing alignment. Construction above or below the existing track would require the Blue and Yellow line to be taken out of service for most of the construction period, which could take 6 to 18 months. This would be far beyond the 76-hour maximum closure period established by WMATA.

The proposed horizontal alignments for the aerial and underground options for Alternatives C1, C2, D1, and D2 do not provide sufficient distances to achieve the vertical separation required to meet the design criteria clearance over and under the CSXT line and under Four Mile Run at the northern end, or under and over the CSXT line at the southern end.

The proposed horizontal alignment for the underground option for Alternative D3 does not provide sufficient distance to achieve the vertical separation required to meet the design criteria clearance under Four Mile Run.

4.0 NEXT STEPS

As noted in Section 1.1, the refinement of the alternatives resulting from scoping will take place in two steps. The results of the screening assessed the feasibility of the alternatives and are documented in Sections 2.1 through 2.4.

The screening resulted in the determination that the at-grade options for Alternatives A, B1, B2, and B3 are feasible, and that the aerial option for Alternative D3 is feasible. Because each of these alternatives could include slight variations in location and still be feasible, a "technically feasible zone" was identified for each.

Next steps, as illustrated in **Figure 4-1**, include determining the station design and configurations within each technically feasible zone for a station. These station designs and configurations, including associated track, ancillary and auxiliary facilities, will be determined based on minimizing social, environmental, and economic impacts, while maximizing the potential benefits of a Metrorail station.

Specifically, the next step in the refinement of alternatives will identify station design and configurations based on the following considerations:

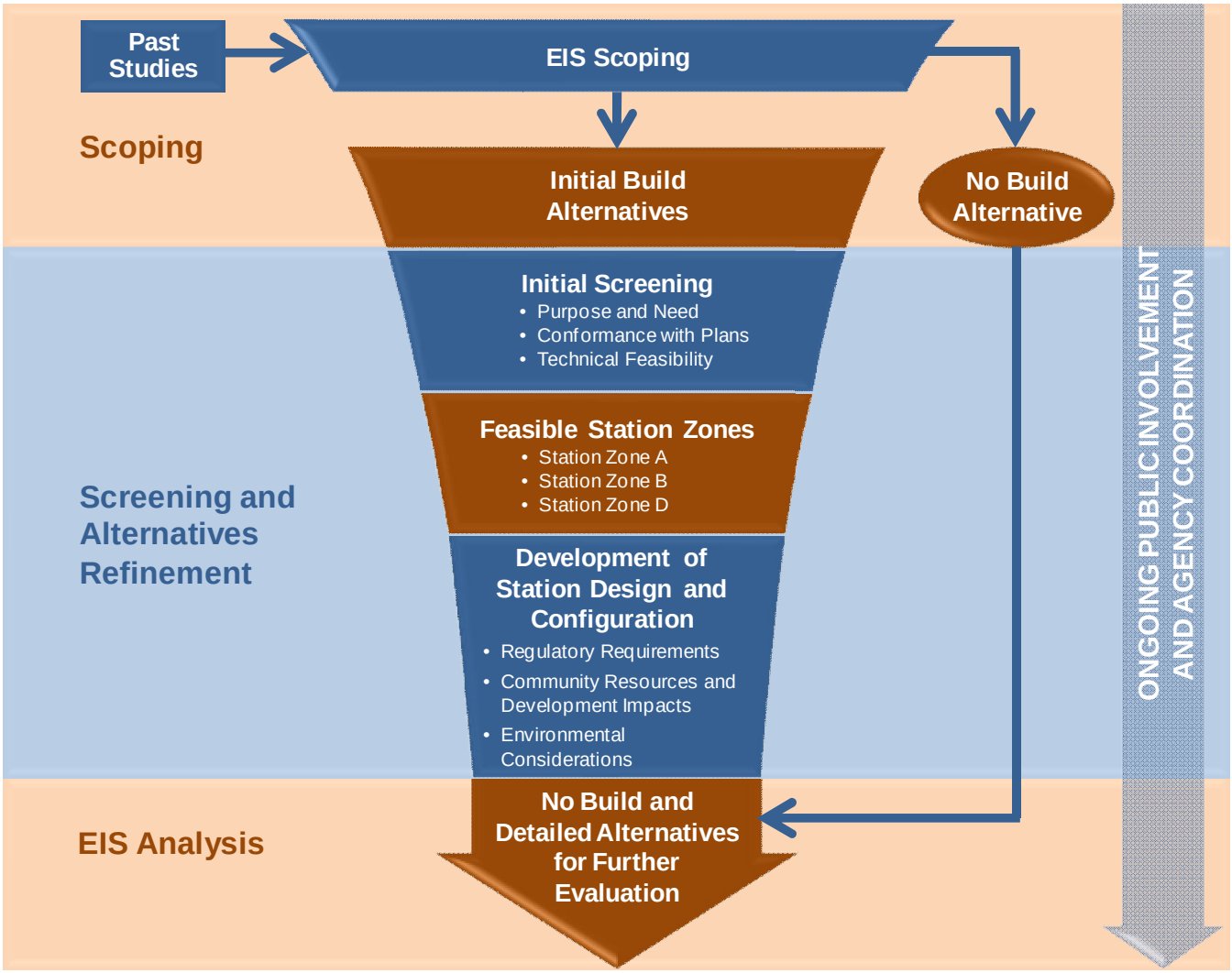
- *Regulatory Requirements*: How might various station locations affect resources that are regulated by local jurisdictions, the Commonwealth of Virginia, or the federal government? Based on initial analysis and concerns raised by the public and agencies during scoping, these resources are likely to include wetlands, floodplains, water quality, parkland, and cultural resources.

- *Impacts to Community Resources and Development*: How might potential station locations within each zone affect existing development, development plans, and community resources?

- *Environmental Considerations*: How might potential station locations affect other environmental impacts that were identified as key considerations during the project scoping process? This includes issues such as visual resources, acquisitions and displacements, noise and vibration, air quality, contaminated materials, transportation, and safety and security.

The result of this refinement of alternatives will be detailed station plans, inclusive of track alignments, that will be carried forward for evaluation in the Draft Environmental Impact Statement.

Figure 4-1: Refinement of Alternatives



Source: AECOM